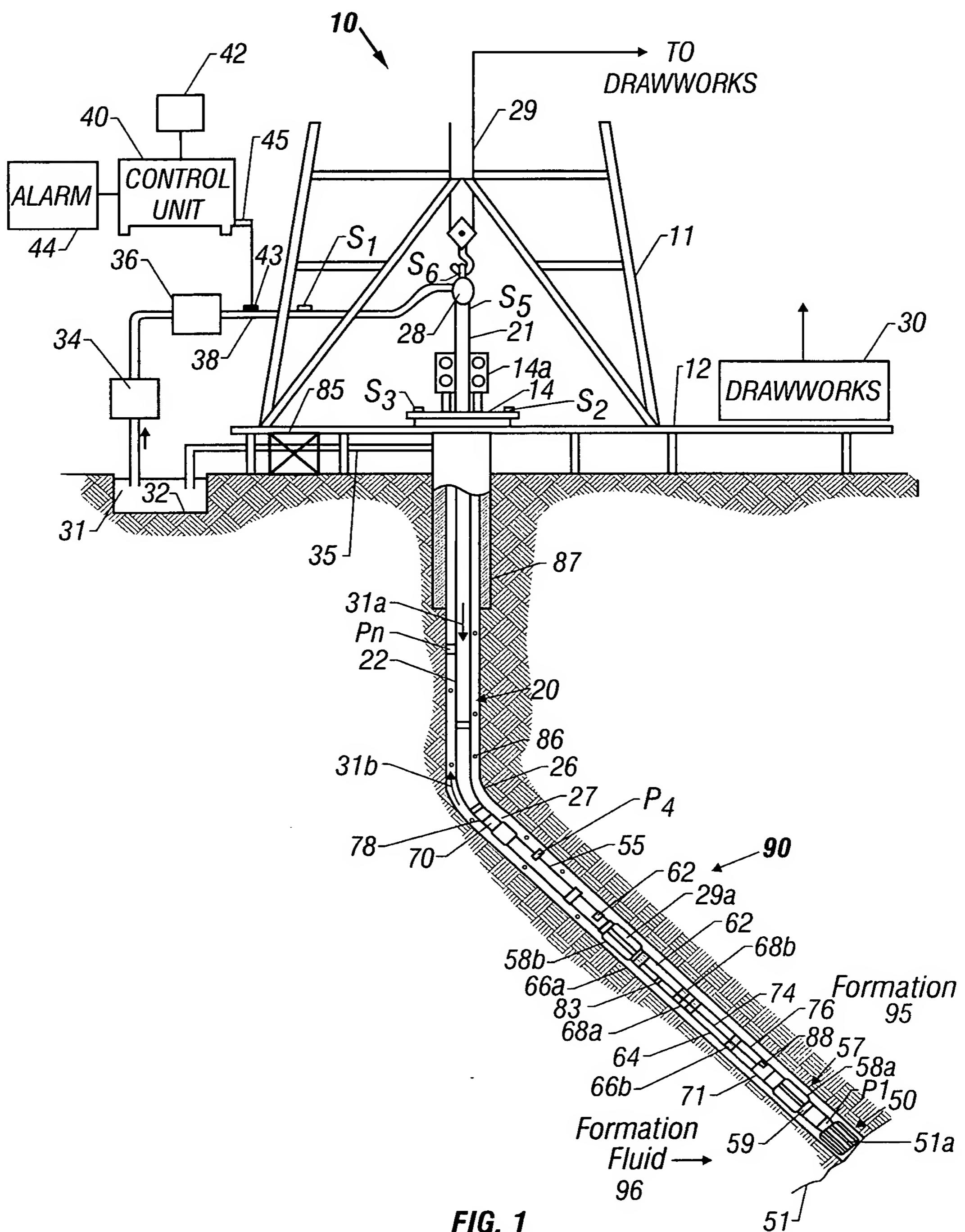




*Inventor: Paul G. Cairns et al.  
Title: Measurement-While-Drilling Assembly Using Real-Time Toolface .....  
Serial No.: 10/629,268; Filed: July 29, 2003; Confirmation No.: 6684  
Docket No.: 414-29494-US*

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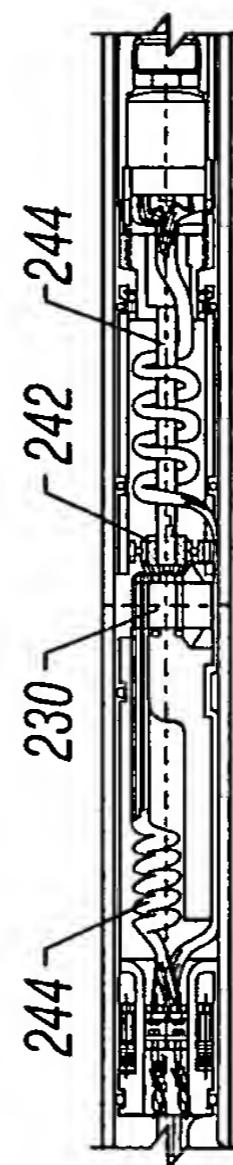
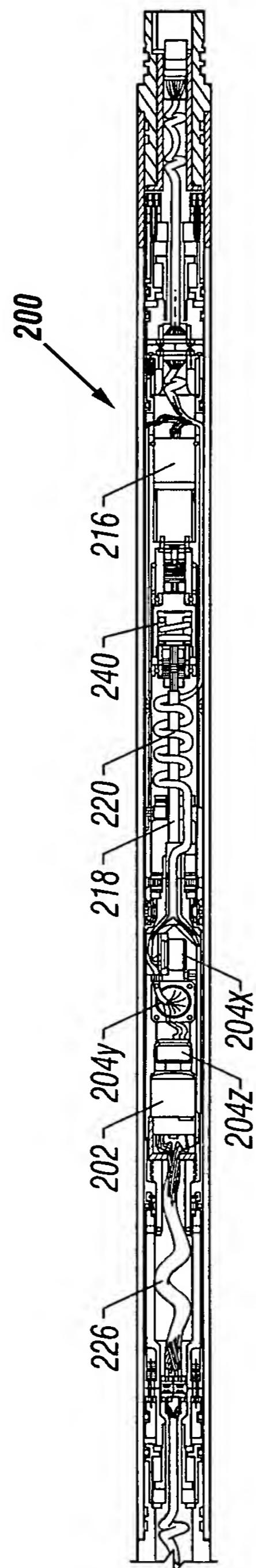


**FIG. 1**



Inventor: Paul G. Cairns et al.  
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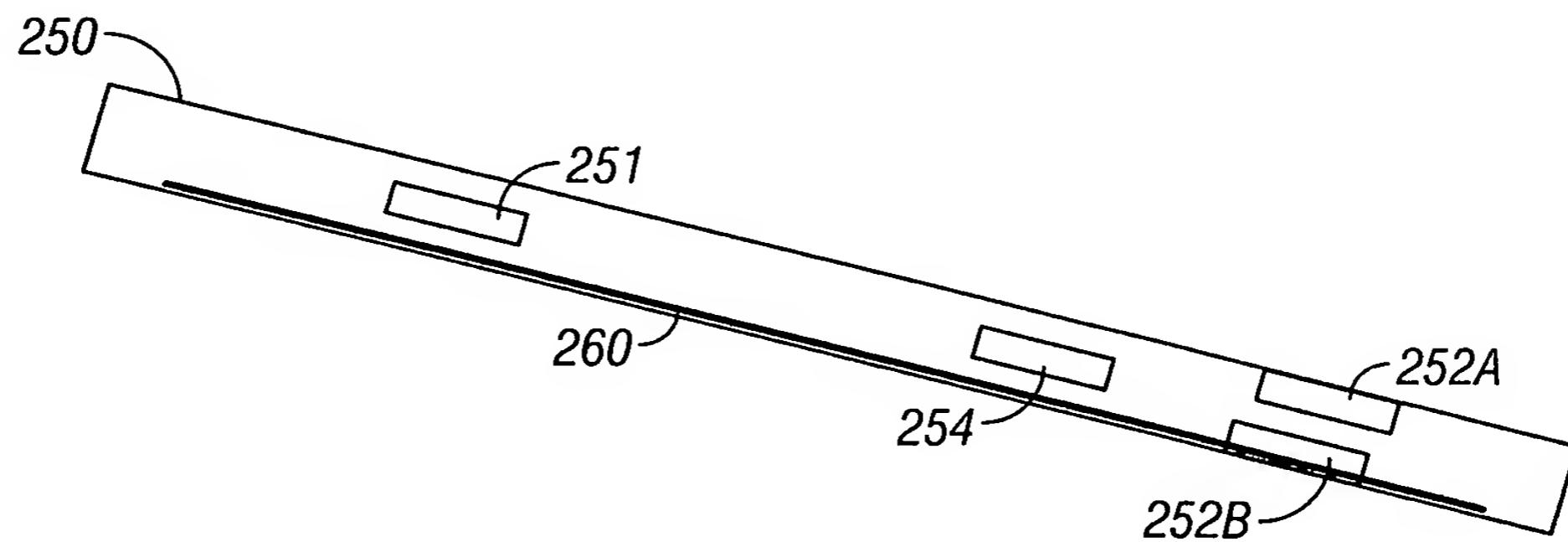


FIG. 3

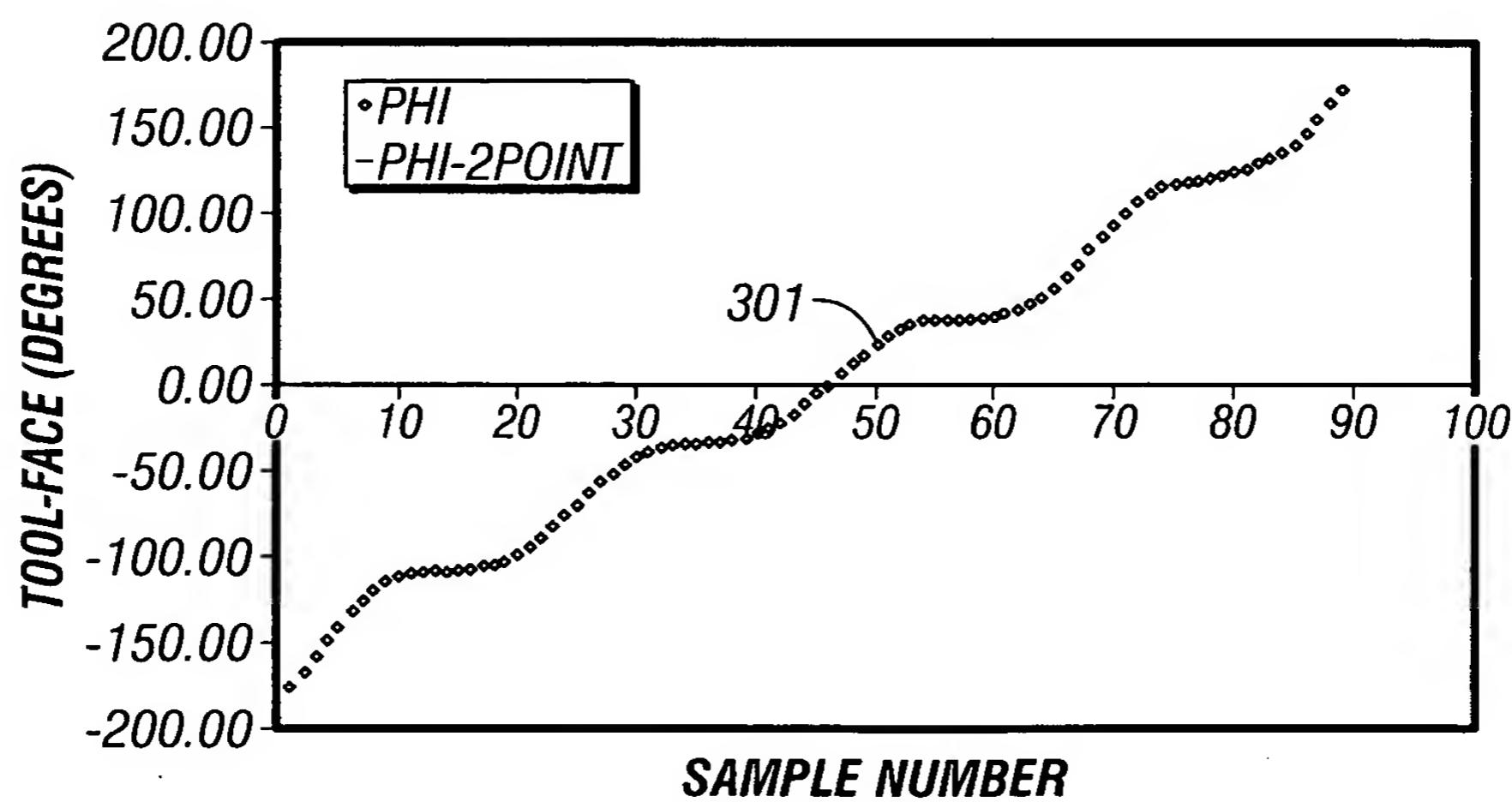


FIG. 4



Inventor: Paul G. Cairns et al.  
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Serial No.: 10/629,268; Filed: July 29, 2003; Confirmation No.: 6684  
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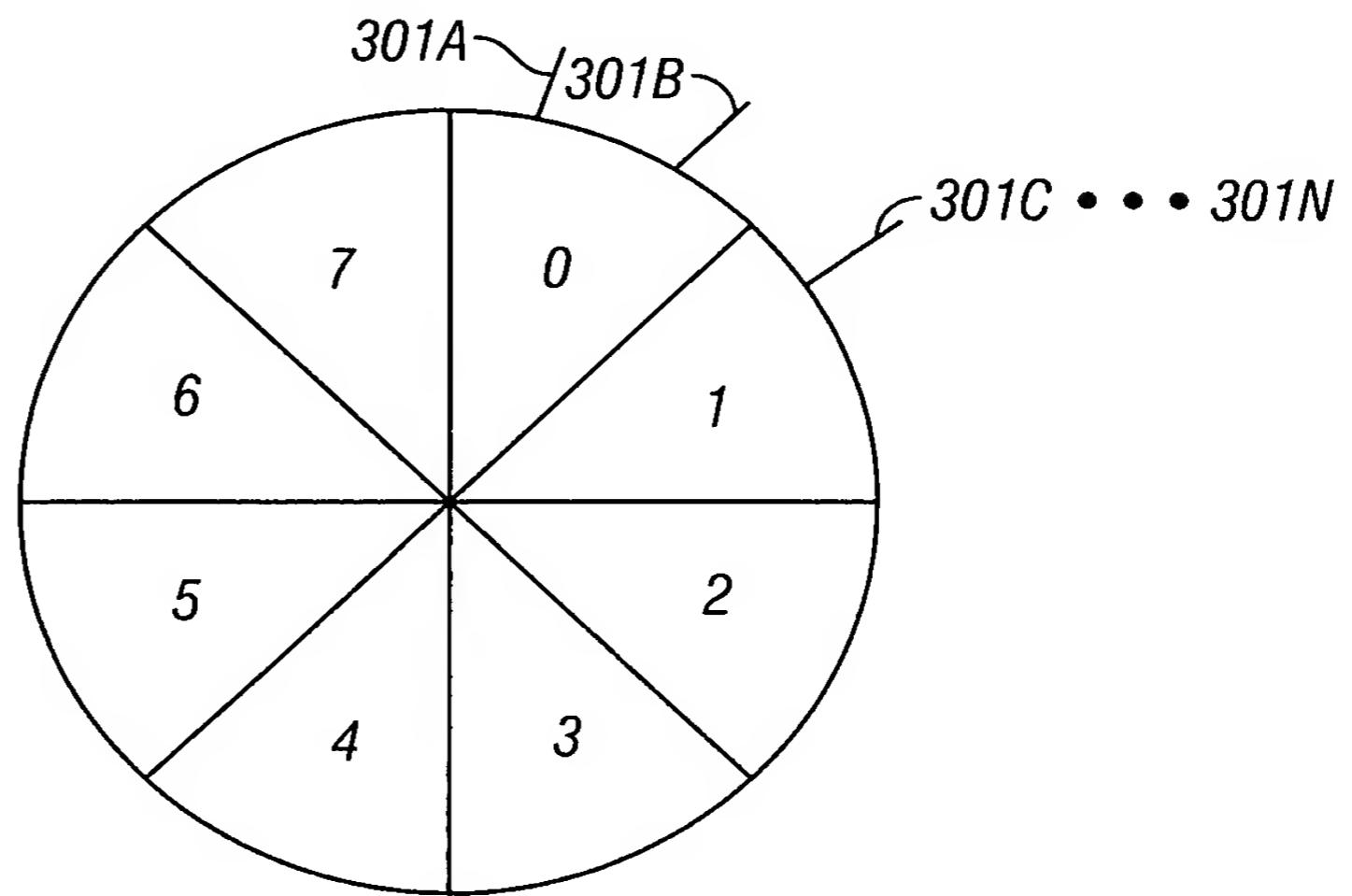


FIG. 5

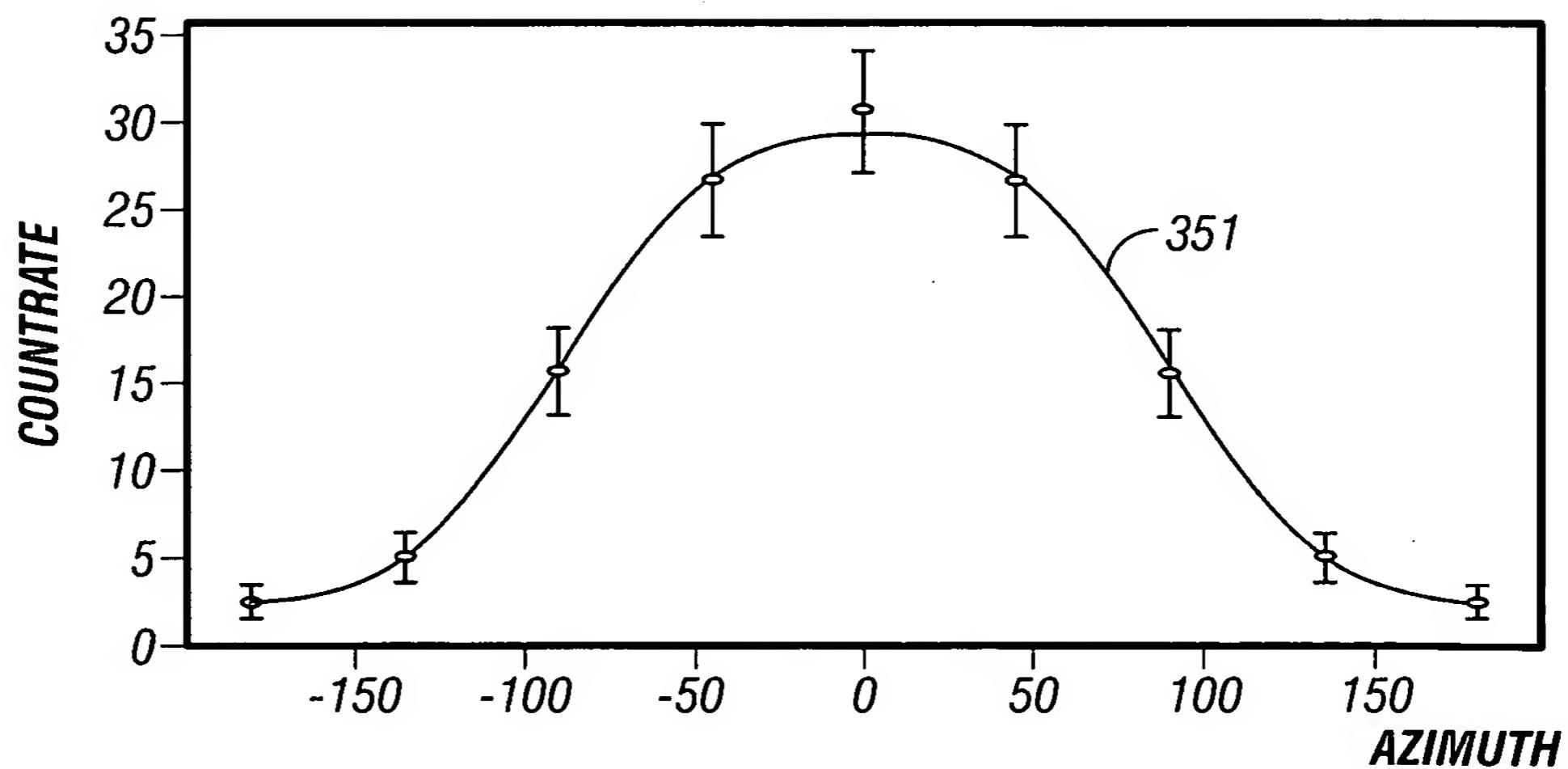


FIG. 6



Inventor: Paul G. Cairns et al.  
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Serial No.: 10/629,268; Filed: July 29, 2003; Confirmation No.: 6684  
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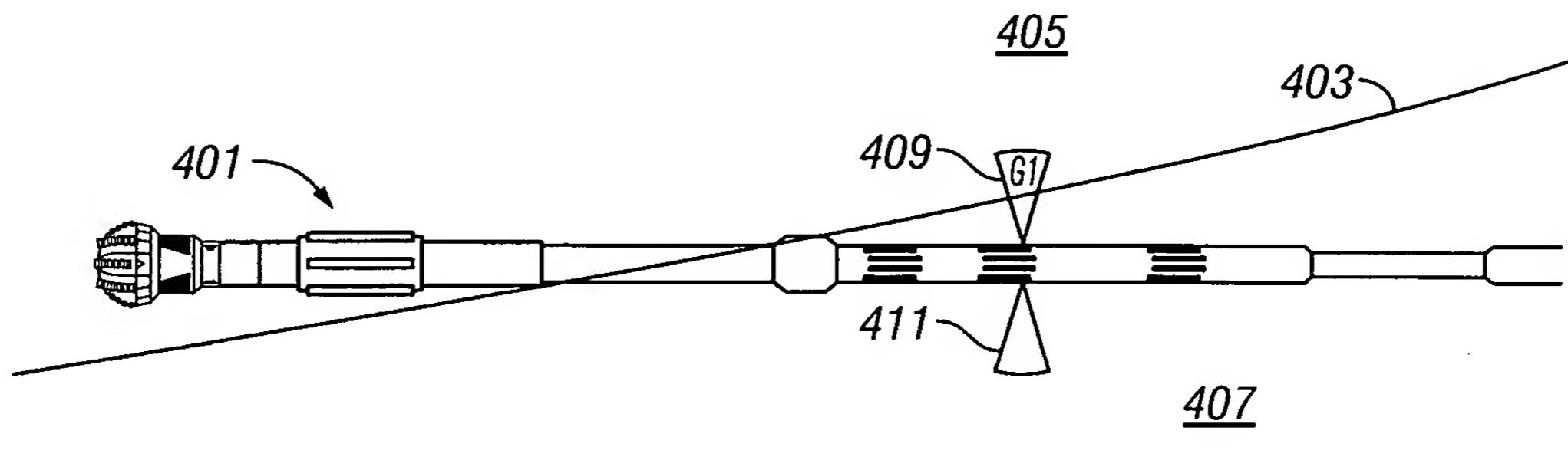


FIG. 7

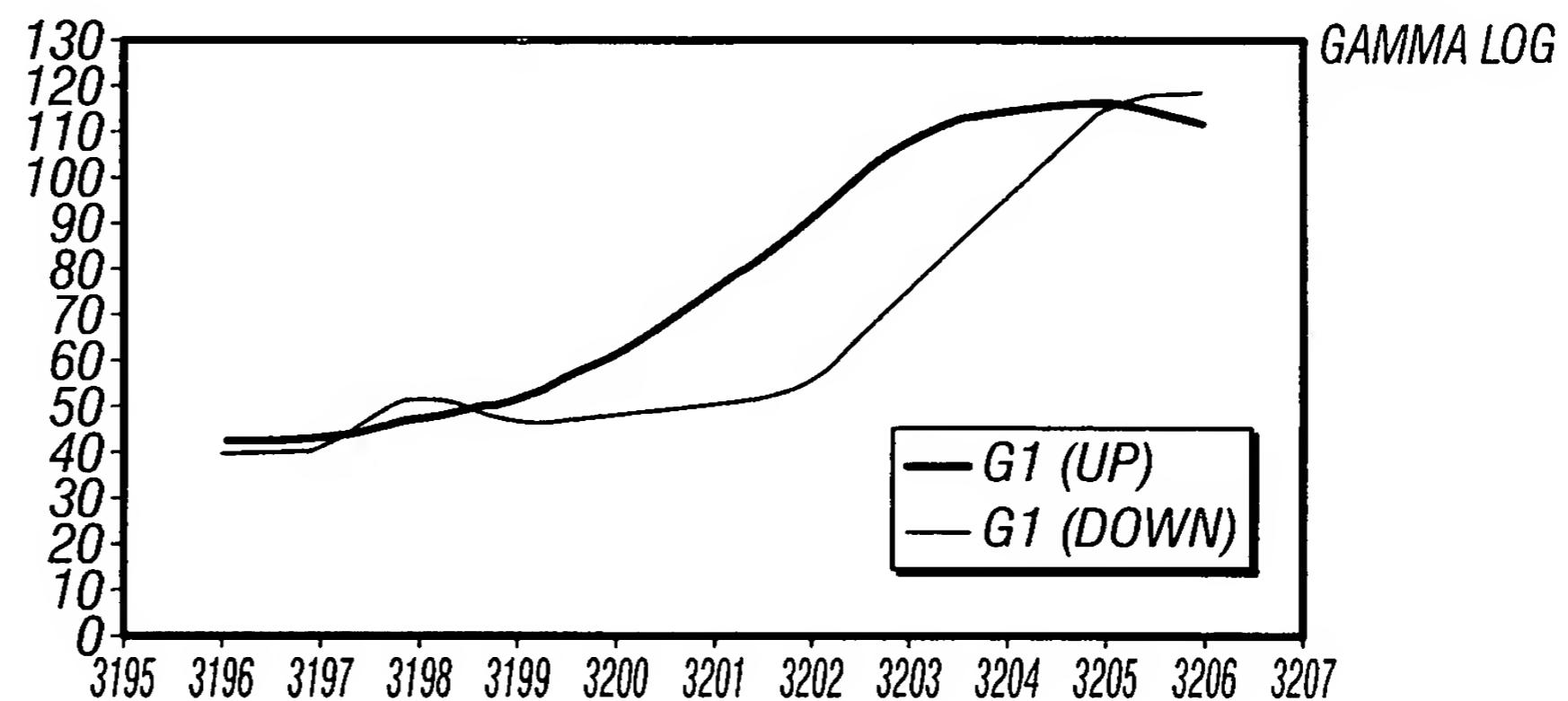


FIG. 8

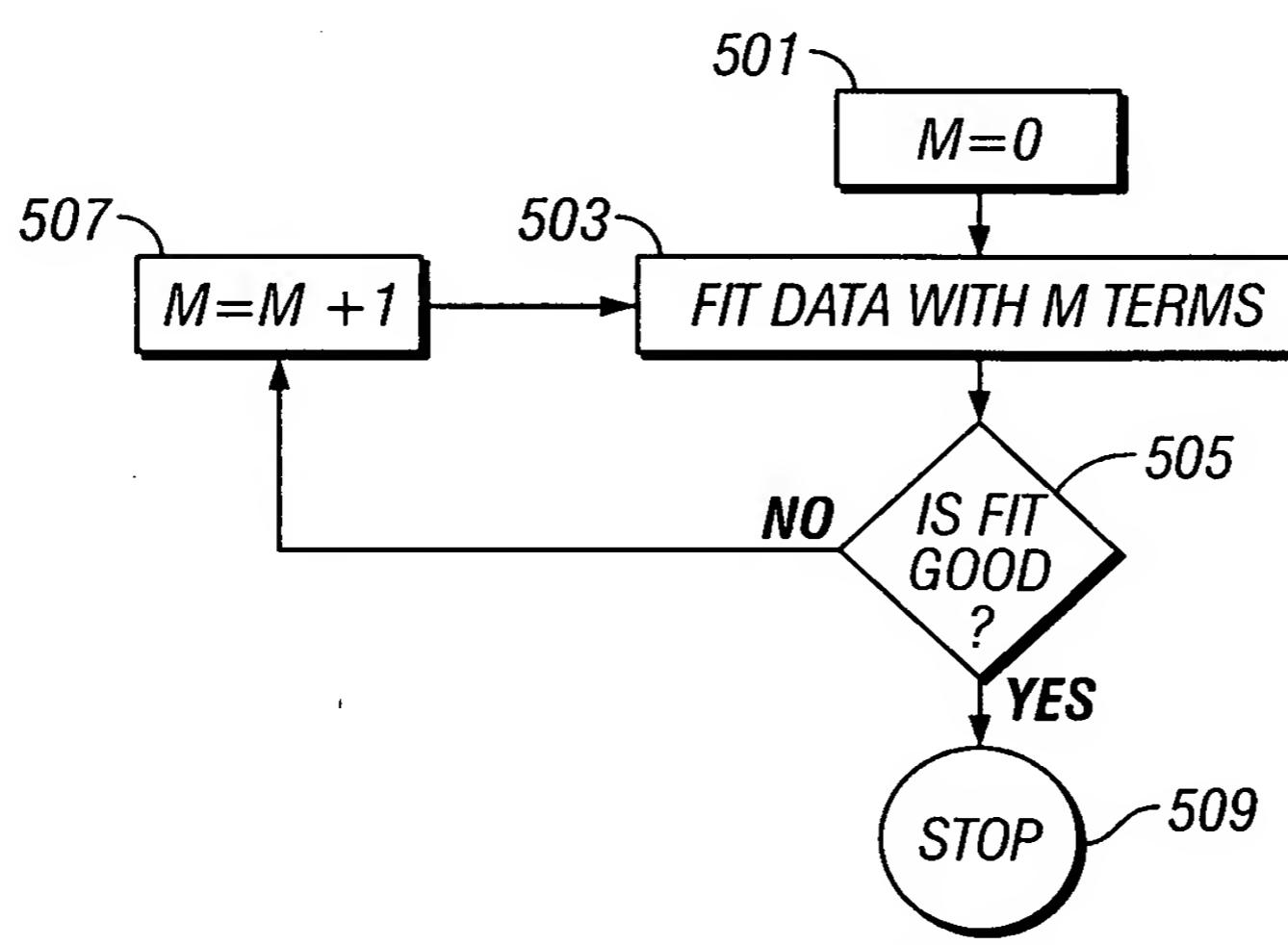


FIG. 9



Inventor: Paul G. Cairns et al.  
Title: Measurement-While-Drilling Assembly Using Real-Time Toolface ....  
Serial No.: 10/629,268; Filed: July 29, 2003; Confirmation No.: 6684  
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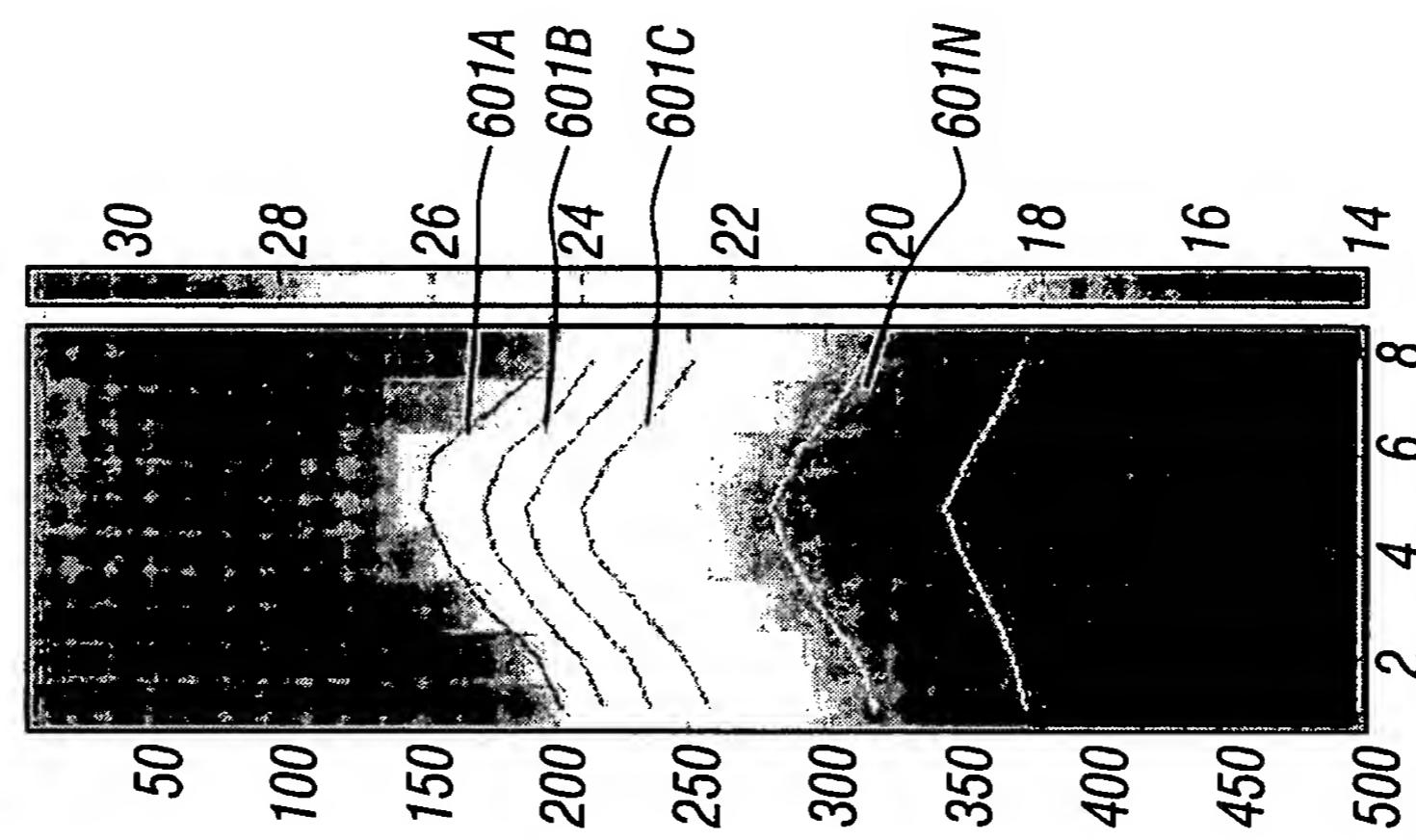


FIG. 10B

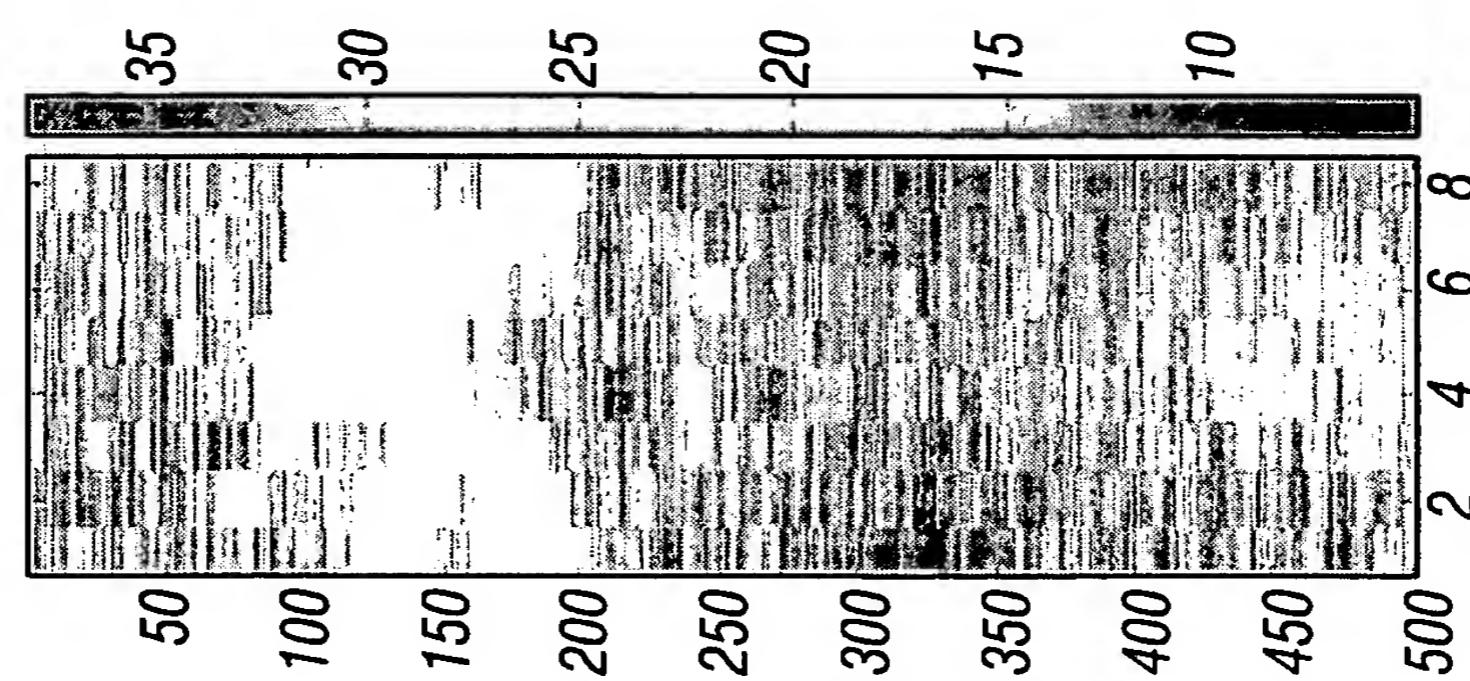


FIG. 10A